WHAT IS CLAIMED IS:

1. A single-use applicator assembly for dispensing and applying a polymerizable monomeric adhesive material, comprising:

a base portion having at least one sealed compartment;

a polymerizable monomeric adhesive material contained in the at least one compartment; and

an applicator at least partially disposed in the at least one compartment such that a tip of the applicator is proximate the polymerizable monomeric adhesive material;

wherein removal of at least one of the applicator and the adhesive material requires the applicator assembly to be destructively unsealed.

2. The applicator assembly according to claim 1, further comprising a medicament contained in the at least one compartment.

3. The applicator assembly according to claim 1, wherein the adhesive material comprises a polymerizable 1,1-disubstituted ethylene monomer formulation.

4. The applicator assembly according to claim 1, wherein the adhesive material comprises a cyanoacrylate formulation.

5. The applicator assembly according to claim 1, wherein the base portion is formed from a material that stabilizes the polymerizable monomeric adhesive material.

6. The applicator assembly according to claim 5, wherein the base portion is formed from a material that stabilizes the polymerizable monomeric adhesive material in the absence of stabilizers being added to the adhesive material.

7. The applicator assembly according to claim 5, wherein the base portion is formed from a halogenated polymeric material.

8. The applicator assembly according to claim 7, wherein the halogenated polymeric material is selected from the group consisting of polyolefins, halogenated hydrocarbons, and engineered resins.

9. The applicator assembly according to claim 7, wherein the halogenated polymeric material is a fluorinated polymeric material.

10. The applicator assembly according to claim 1, wherein at least the portion of the applicator that is disposed in the compartment is formed from a material that stabilizes the polymerizable monomeric adhesive material.

11. The applicator assembly according to claim 10, wherein the tip of the applicator is made from a same material as the base portion.

12. The applicator assembly according to claim 1, wherein the tip of the applicator is at least one of porous, absorbent and adsorbent in nature.

13. The applicator assembly according to claim 12, wherein the adhesive material is absorbed or adsorbed into the applicator tip.

14. The applicator assembly according to claim 12, wherein a medicament is absorbed or adsorbed into the applicator tip.

15. The applicator assembly according to claim 1, wherein the tip of the applicator comprises a material selected from the group consisting of metal, glass, paper, ceramics and cardboard.

16. The applicator assembly according to claim 1, wherein the tip of the applicator comprises a plastic material.

17. The applicator assembly according to claim 1, wherein the tip of the applicator comprises one of a rolling ball, a brush, and a swab.

18. The applicator assembly according to claim 1, wherein the adhesive material is sterilized.

19. The applicator assembly according to claim 18, wherein the tip of the applicator is sterilized.

20. The applicator assembly according to claim 1, wherein the sealed compartment maximizes a ratio of a surface area of an enclosed space of the sealed compartment to a volume of the adhesive material contained therein.

21. The applicator assembly according to claim 1, wherein the at least one sealed compartment comprises a first sealed compartment and a second sealed compartment, the first and second compartments being separated, the polymerizable monomeric adhesive material being contained in the first compartment and the applicator being at least partially disposed in the second compartment.

22. The applicator assembly according to claim 21, further comprising a polymerization initiator or accelerator for the adhesive material disposed in the second compartment.

23. The applicator assembly according to claim 22, wherein the polymerization initiator or accelerator is disposed in or on the tip of the applicator.

24. The applicator assembly according to claim 23, wherein the tip of the applicator is at least one of porous, absorbent and adsorbent in nature.

25. The applicator assembly according to claim 24, wherein the polymerization initiator or accelerator is absorbed or adsorbed into the tip of the applicator.

26. The applicator assembly according to claim 21, further comprising a medicament disposed in the second compartment.

27. The applicator assembly according to claim 26, wherein medicament is disposed in or on the tip of the applicator.

28. The applicator assembly according to claim 26, wherein the tip of the applicator is at least one of porous, absorbent and adsorbent in nature.

29. The applicator assembly according to claim 28, wherein the medicament is absorbed or adsorbed into the tip of the applicator.

30. The applicator assembly according to claim 21, further comprising a frangible barrier separating the first and second compartments.

31. The applicator assembly according to claim 1, wherein the at least one sealed compartment comprises a first compartment and a second compartment, the first and second compartments being open to each other, the polymerizable monomeric adhesive material being contained in the first compartment and the applicator being at least partially disposed in the second compartment.

32. The applicator assembly according to claim 31, further comprising a plunger that defines the second compartment and that is movable into the first compartment to displace the adhesive material into the second compartment.

33. The applicator assembly according to claim 31, further comprising a polymerization initiator or accelerator for the adhesive material disposed in the second compartment.

34. The applicator assembly according to claim 33, wherein the polymerization initiator or accelerator is disposed in or on the tip of the applicator.

35. The applicator assembly according to claim 34, wherein the tip of the applicator is at least one of porous, absorbent and adsorbent in nature.

36. The applicator assembly according to claim 35, wherein the polymerization initiator or accelerator is absorbed or adsorbed into the tip of the applicator.

37. A kit comprising a plurality of associated assemblies of claim 1.

38. The kit of claim 37, wherein a first of the assemblies comprises a greater amount of adhesive material than a second of the assemblies.

39. The kit of claim 37, further comprising a medicament contained in the at least one compartment.

40. The kit of claim 37, further comprising a polymerization initiator or accelerator for the adhesive material.

41. The kit of claim 40, wherein a first of the assemblies comprises a greater amount of adhesive material than a second of the assemblies.

42. The kit of claim 40, wherein a first of the assemblies comprises a greater amount of polymerization initiator or accelerator than a second of the assemblies.

43. The kit of claim 37, wherein at least two of the assemblies are frangibly connected to each other.

44. The kit of claim 37, wherein a first of the assemblies comprises a larger sized tip of the applicator than a second of the assemblies.

45. A method of applying an adhesive material, comprising:
destructively opening an applicator assembly according to claim 1;
removing the applicator from the at least one compartment; and
applying the adhesive to a substrate to be bonded.

46. The method of claim 45, wherein the substrate to be bonded is tissue.

47. The method of claim 45, wherein the destructively opening step comprises at least partially separating a first part of the base portion from a second part of the base portion.

48. The method of claim 45, wherein the destructively opening step comprises breaking at least a frangible barrier that seals the at least one compartment.

49. A method of applying an adhesive material, comprising:
destructively opening an applicator assembly according to claim 6;
removing the applicator from the at least one compartment; and
directly applying the adhesive to a substrate to be bonded.

50. The method of claim 49, wherein the substrate to be bonded is tissue.

51. The method of claim 49, wherein the destructively opening step comprises at least partially separating a first part of the base portion from a second part of the base portion.

52. The method of claim 49, wherein the destructively opening step comprises breaking at least a frangible barrier that seals the at least one compartment.

53. A method of applying an adhesive material, comprising:

destructively opening an applicator assembly according to claim 21;

removing the applicator from the second compartment;

applying adhesive to the applicator; and

applying the adhesive to a substrate to be bonded.

54. The method of claim 53, wherein the substrate to be bonded is tissue.

55. A method of applying an adhesive material, comprising:

providing an applicator assembly according to claim 30;

moving the applicator to break the frangible partition separating the first and second compartments;

applying adhesive to the applicator;

removing the applicator from the applicator assembly; and

applying the adhesive to a substrate to be bonded.

56. The method of claim 55, wherein the substrate to be bonded is tissue.

57. A method of applying an adhesive material, comprising:

providing an applicator assembly according to claim 32;

moving the plunger into the first compartment to displace the adhesive material into the second compartment such that adhesive is applied to the applicator;

removing the applicator from the second compartment; and

applying the adhesive to a substrate to be bonded.

58. The method of claim 57, wherein the substrate to be bonded is tissue.

59. A dispenser for a polymerizable monomeric adhesive material, comprising:

a first dispenser element defining a first reservoir, the first dispenser element having an open end and a closed end;

a second dispenser element defining a chamber, the second dispenser element having an open end, a closed end and at least one aperture disposed between the open end and the closed end, the at least one aperture opening into the chamber; and

a polymerizable monomeric adhesive material contained in the first reservoir, wherein at least the closed end of the second dispenser element is received in a first position by the first dispenser element to seal the adhesive material in the first reservoir.

60. The adhesive dispenser of claim 59, further comprising:

a first circumferential ridge portion that is situated between the closed end of the first dispenser element and the at least one aperture of the second dispenser element when the closed end of the second dispenser element is in the first position.

61. The adhesive dispenser of claim 60, wherein the first circumferential ridge portion is disposed on an inner surface of the first dispenser element.

62. The adhesive dispenser of claim 60, wherein the first circumferential ridge portion is disposed on an outer surface of the second dispenser element.

63. The adhesive dispenser of claim 60, further comprising a second circumferential ridge portion that is situated between the open end of the first dispenser element and the at least one aperture of the second dispenser element when the closed end of the second dispenser element is in the first portion.

64. The adhesive dispenser of claim 63, wherein the first and second circumferential ridge portions form a continuous circumferential ridge.

65. The adhesive dispenser of claim 63, wherein the second circumferential ridge portion is disposed on an inner surface of the first dispenser element.

66. The adhesive dispenser of claim 63, wherein the second circumferential ridge portion is disposed on an outer surface of the second dispenser element.

67. The adhesive dispenser of claim 63, wherein the chamber and the at least one aperture comprise a second reservoir.

68. The adhesive dispenser of claim 67, further comprising a second material contained in the second reservoir.

69. The adhesive dispenser of claim 68, wherein the second material is a polymerization initiator or accelerator for the adhesive material.

70. The adhesive dispenser of claim 68, wherein the second material is a medicament.

71. The adhesive dispenser of claim 67, further comprising a second material contained in the first reservoir, the polymerizable monomeric adhesive material being contained in the second reservoir.

72. The adhesive dispenser of claim 71, wherein the second material is a polymerization initiator or accelerator for the adhesive material.

73. The adhesive dispenser of claim 71, wherein the second material is a medicament.

74. The adhesive dispenser of claim 68, further comprising a seal at the open end of the second dispenser element, the seal and the second circumferential ridge portion sealing the second reservoir.

75. The adhesive dispenser of claim 74, wherein the seal comprises a frangible barrier.

76. The adhesive dispenser of claim 74, wherein the seal comprises a removable cap.

77. The adhesive dispenser of claim 59, further comprising:

a lip disposed on an outer surface of the second dispenser element between the at least one aperture and the open end of the second dispenser element, the lip contacting the first dispenser element when the closed end of the second dispenser element is in a second position closer to the closed end of the first dispenser element than the first position.

78. The adhesive dispenser of claim 59, wherein the adhesive material comprises a polymerizable 1,1-disubstituted ethylene monomer formulation.

79. The adhesive dispenser of claim 59, wherein the adhesive material comprises a cyanoacrylate formulation.

80. The adhesive dispenser of claim 59, wherein the base portion is formed from a material that stabilizes the polymerizable monomeric adhesive material.

81. The adhesive dispenser of claim 80, wherein the base portion is formed from a material that stabilizes the polymerizable monomeric adhesive material in the absence of stabilizers being added to the adhesive material.

82. The adhesive dispenser of claim 80, wherein the base portion is formed from a halogenated polymeric material.

83. The adhesive dispenser of claim 82, wherein the halogenated polymeric material is selected from the group consisting of polyolefins, halogenated hydrocarbons, and engineered resins.

84. The adhesive dispenser of claim 59, wherein the adhesive material is sterilized.

85. The adhesive dispenser of claim 84, wherein the first and second dispenser elements are sterilized.

86. A method of applying an adhesive material, comprising:

actuating a dispenser according to claim 59;

inserting an applicator into the chamber of the second dispenser element;

removing the applicator from the chamber; and

directly applying the adhesive to a substrate to be bonded.

87. The method of claim 86, wherein the actuating step comprises moving the closed end of the second dispenser element to a second position closer to the closed end of the first dispenser element than the first position.

88. The method of claim 86, wherein the substrate to be bonded is tissue.

89. A kit comprising a plurality of associated dispensers of claim 59.

90. The kit of claim 89, wherein a first of the dispensers comprises a greater amount of adhesive material than a second of the dispensers.

91. The kit of claim 89, further comprising a medicament.

92. The kit of claim 89, further comprising a polymerization initiator or accelerator for the adhesive material.

93. The kit of claim 92, wherein a first of the dispensers comprises a greater amount of adhesive material than a second of the dispensers.

94. The kit of claim 92, wherein a first of the dispensers comprises a greater amount of polymerization initiator or accelerator than a second of the dispensers.

95. The kit of claim 89, wherein at least two of the dispensers are frangibly connected to each other.

96. A dispenser for a polymerizable monomeric adhesive material, comprising:

a dispenser element defining a first reservoir, the dispenser element having an open end and a closed end;

a circumferential ridge portion disposed on an inner surface of the dispenser element between the open end and the closed end;

a stopper element sealingly fitted against the circumferential ridge portion to seal the first reservoir and define a chamber between the stopper element and the open end; and

a polymerizable monomeric adhesive material contained in the first reservoir.

97. The adhesive dispenser of claim 96, wherein the circumferential ridge portion is deformable to release the stopper element.

98. The adhesive dispenser of claim 96, wherein the chamber comprises a second reservoir.

99. The adhesive dispenser of claim 98, further comprising a second material contained in the second reservoir.

100. The adhesive dispenser of claim 99, wherein the second material is a polymerization initiator or accelerator for the adhesive material.

101. The adhesive dispenser of claim 99, wherein the second material is a medicament.

102. The adhesive dispenser of claim 98, further comprising a second material contained in the first reservoir, the polymerizable monomeric adhesive material being contained in the second reservoir.

103. The adhesive dispenser of claim 102, wherein the second material is a polymerization initiator or accelerator for the adhesive material.

104. The adhesive dispenser of claim 102, wherein the second material is a medicament.

105. The adhesive dispenser of claim 99, further comprising a seal at the open end of the dispenser element, the seal and the circumferential ridge portion sealing the second reservoir.

106. The adhesive dispenser of claim 105, wherein the seal comprises a frangible barrier.

107. The adhesive dispenser of claim 105, wherein the seal comprises a removable cap.

108. The adhesive dispenser of claim 96, wherein the adhesive material comprises a polymerizable 1,1-disubstituted ethylene monomer formulation.

109. The adhesive dispenser of claim 96, wherein the adhesive material comprises a cyanoacrylate formulation.

110. The adhesive dispenser of claim 96, wherein the dispenser element is formed from a material that stabilizes the polymerizable monomeric adhesive material.

111. The adhesive dispenser of claim 110, wherein the dispenser element is formed from a material that stabilizes the polymerizable monomeric adhesive material in the absence of stabilizers being added to the adhesive material.

112. The adhesive dispenser of claim 110, wherein the dispenser element is formed from a halogenated polymeric material.

113. The adhesive dispenser of claim 112, wherein the halogenated polymeric material is selected from the group consisting of polyolefins, halogenated hydrocarbons, and engineered resins.

114. The adhesive dispenser of claim 96, wherein the adhesive material is sterilized.

115. The adhesive dispenser of claim 114, wherein the dispenser element and the stopper element are sterilized.

116. A method of applying an adhesive material, comprising:

actuating a dispenser according to claim 96;

inserting an applicator into the dispenser element;

removing the applicator from the dispenser element; and

directly applying the adhesive to a substrate to be bonded.

117. The method of claim 116, wherein the substrate to be bonded is tissue.

118. The method of claim 116, wherein the actuating step comprises deforming the circumferential ridge portion to release the stopper element.

119. The method of claim 118, wherein the deforming step comprises compressing the circumferential ridge portion against the stopper element.

120. The method of claim 118, wherein the deforming step comprises bending the dispenser element about the stopper element.

121. A kit comprising a plurality of associated dispensers of claim 96.

122. The kit of claim 121, wherein a first of the dispensers comprises a greater amount of adhesive material than a second of the dispensers.

123. The kit of claim 121, further comprising a medicament.

124. The kit of claim 121, further comprising a polymerization initiator or accelerator for the adhesive material.

125. The kit of claim 124, wherein a first of the dispensers comprises a greater amount of adhesive material than a second of the dispensers.

126. The kit of claim 124, wherein a first of the dispensers comprises a greater amount of polymerization initiator or accelerator than a second of the dispensers.

127. The kit of claim 121, wherein at least two of the dispensers are frangibly connected to each other.